

OPENING OF LINE TO BENARES- VICEREGAL VISIT

--P.K.Mishra

Synopsis: On Thursday morning, the 5th February 1863, Viceroy Special, consisting of eight carriages, left the Howrah station, conveying the Earl and Countess of Elgin and Lady Louisa Bruce, with their suite accompanied by The Agent of EIR, Mr. Palmer & Mr. Turnbull Chief Engineer, and so far as the East Indian Railway Company's line was opened -that is, to Benares, en-route for the north-west. The Lieutenant Governor of Bengal, Sir Cecil Beadon, joined the vice regal party at Dinapore, and proceeded with it to Benares, in order to be present at a grand durbar and a grand dinner.

It would be a special occasion; the formal opening of 541 miles of lines of EIR from Benares to Howrah, the longest stretch of uninterrupted direct rail line in the country, by Viceroy Lord Elgin in "the Great Durbar" at Benares to celebrate on accomplishment of a major mile stone in one of the most gigantic infrastructure work carried anywhere in the world. The construction of line from Dinapore to Benares was completed on 22nd December 1862.

It would be an occasion where Viceroy and Governor General would publicly put their stamp of appreciation and well deserved encomium over the splendid work done by EIR in constructing Railway in India.

Mr. Turnbull, Chief Engineer EIR, after thirteen years' of strenuous service, supervising survey and construction of around 900 miles of Railway in India would leave for England due to his failing health and his singular contribution would be praised both by Viceroy and Governor of Bengal in most glowing terms. He would be succeeded by Mr. Power, who had constructed major portion of Soane Bridge, as chief engineer of EIR.

The magnificent series of works forming this important railroad have been planned and carried out by Mr. Turnbull from the very outset to the period of completion under circumstances of extraordinary difficulty, and the highest credit is due to him for the successful issue to which he has conducted his operations. His Honour considers that Mr. Turnbull fully deserves some marked acknowledgment of his exertions on the part of the Government of India, and of the home authorities.

-- Sir Cecil Beadon , Governor Of Bengal

The quickest journey ever performed between Benares and London was by Mr. Turnbull, who left the former place on the 8th February 1863, arrived at Calcutta on the 9th, left Calcutta the same day, and reached London on the 15th March, occupying but 36 days in all.

Proprietors of EIR would officially record the contributions of Mr. Turnbull on April 29, half yearly General meeting, as-

"Gratifying, however, as any such tokens of respect would, doubtless, be to Mr. Turnbull, they will be nothing as compared with the reward he will find in the contemplation of the kindly feelings with which future ages of India will unquestionably regard the name of the man whose genius planned, and whose indomitable courage and perseverance have carried out, " the magnificent series of works " entrusted to his care.

At Burdwan, the Maharajah of Burdwan was introduced to the Viceroy, and after a few minutes of delay, the train started again.

In their anxiety to do the thing in due Viceregal conveyance style, EIR had supplied the engines, and the coaling stations along, with Kurhurbaree coal, the coal with highest calorific value from its own Giridih colliery, as being of extra-superior-superfine-steam-generating quality; but the said supplies had been lying exposed to deteriorating atmospherical influences for some two years at Howrah. So it was in vain that the stokers fed the fires to repletion; the more they burned, the less steam they got; station after station the time got worse and worse.

Nulhatee was reached by the way, and here the Viceroy stopped to inspect Mr. Wilson's experimental light Railway running from this station to Moorshedabad, a line to connect old capital of Bengal with EIR lines at Nulhatee.

The train, skirting the foot of the Rajmahal Hills, passed the Teen Pahar, junction to Rajmahal, resplendent with pretty and varied scenery which nature provided in abundance, further passing Colgong, Bhaugulpore, Sultangunge, and the Monghyr tunnel. The cold, crisp atmosphere of the season greeted the accompanying party of the special train which made a night halt at Jamalpur as Viceroy had desired to inspect the remaining portion of lines during the day. Catering arrangements were overseen by Mr. Kellner, of Burdwan hotel celebrity, who had recently started his operation at Jamalpur and Dinapore too.

The Viceroy special resumed its onward journey in the morning and from Jumalpure upwards, the rail continued to skirt the hills for about fifteen miles; and then succeeded mile on mile of an unbroken scene of green fields well cultivated.

At Dinapore, military and government officials were in full attendance and there was a great display of troops. The Lieutenant Governor of Bengal, Sir Cecil Beadon, joined the vice regal party at Dinapore. After tiffin, specially prepared by Kellner, the train resumed its onward journey.

Next point of inspection was Soane bridge, a magnificent assertion of British energy and power, and the universal stretch of science, as it would be first time that great river would be spanned and bought within the bounds of modern civilization. The train ran over its vast length and stopped beyond, where the Viceroy and the whole party descended and spent half an hour of wonder and admiration at the strength and noble simplicity of the grand structure stretching upon twenty nine arches, of one hundred and fifty feet span, or one thousand four hundred and fifty yards at a great elevation, rendered necessary by the enormous rise of the torrents in the river during the rainy season.

The construction had suffered major delay during first war of independence in 1857 and progress of all works above Munger was at standstill for next two years. EIR suffered major destruction of its properties; later valued at three million sterling and preparatory work at Soane Bridge were destroyed twice in the uprising.

The train arrived, after a splendid run over one of the best laid new lines, half an hour before the appointed time on 6th January. The consequence was that no one was prepared for the reception. The police were ready, however, and formed a guard, and the troops, consisting of H.M.'s 20th and an escort of the Queen's Bays, arrived just in time to be too late, whilst a magnificent procession, intended by the Rajah of Benares to meet the Viceroy, had to be stopped on the far side of the bridge.

Benares was alive on the Saturday morning with crowds of enormous elephants and countless mobs of camels and motley spearmen and Sowars in every variety of tawdry uniform, no two of them according in anything except the common and all-pervading ground of dirt.

Rajah of Benares was received at noon by a private durbar, and then at one o'clock came the Great Durbar. In an enormous tent was placed the Viceroy's chair of state flanked by the Lieutenant-governor of Bengal on his left and the Foreign Secretary, Col. Durand, on his right. In a great semicircle to the right were the native nobles attired in their gorgeous dresses and gentry headed by the Rajah of Benares, as the local chief, Maharajahs of Doomraon and Bettia and the Maharajah of Vizianagram who was there on a pilgrimage, as the leader of the natives not of the Benares district.

Governor General in his address conveyed the desire of her Majesty the Queen to represent native gentlemen of India in the council of the Governor-general, in order that, when laws are made for India, their opinions, and wishes, and feelings may receive due consideration.

H.E. while celebrating the opening of Railway, spoke about the great enhancement of values of large estates of the rajahs and gentlemen in the neighbourhood and along the line of railway after the completion of the important work and requested them to work in lifting conditions of their Ryots.

The European portion of guests, excepting the ladies, met again to close the busy day, at seven in the evening, at the Assembly Rooms, where was spread "The Dinner". The caterer, Mr. Kellner, on just five days' notice, had laid the sumptuous dinner along with refreshing drinks and punches cooled by famed Wenham lake ice, for about 120 guests.

Lord Elgin was supported on either side by Mr. Turnbull, the chief engineer, and Mr. Palmer, the agent of the East India Railway Company, and with them were seated the Lieutenant-governor of Bengal, General Campbell, commanding the Benares Division, Mr. Shakespeare, representing the Lieutenant-governor of the North West, the Rajah of Benares, and Mr. Sibley, one of the executive engineers of the company.

The Agent, Mr. Palmer, proposed the toasts, and thanked his Excellency the Viceroy and Governor-general of India for the honour in taking part in the proceedings of day, his keen interest & encouragement in the progress of the East Indian Railway.

Lord Elgin termed the Railway works as monuments of British engineering skill, and of the power and beneficent application of British capital which would endure for all ages. H.E. congratulated Mr. Turnbull for progress of the great work

which he had superintended from the commencement, and which owed so much to and great ability with which he had guided and directed it.

He expressed his view against an indefinite extension of a system of Government guarantees for construction of Railways. He laid down as a fundamental principle that country ought to look to the eventual establishment of one uniform railway gauge for the whole of India.

He shared his experience of travelling in 1854, by Railway from New York to Washington; where he had several ferries to cross on the way, but found that the railway with the ferries was much better than no railway at all. In America, where they cannot get a Pucka railway, they take a Cutcha one instead.

He suggested similar scheme for India of constructing Railways as *there are many districts where railways, costing from £3,000 to £4,000 a mile, might be introduced with advantage, although they would not justify an expenditure of from £10,000 to £15,000 a mile. H.E. finally concluded by requesting everyone to join him in drinking "Success and prosperity to the East Indian Railway."*

Sir Cecil Beadon Governor of Bengal eloquently spoke about the contributions of EIR officials , who had hitherto wrought bravely and unflinchingly towards the accomplishment of this great object, in spite of difficulties which on the whole were perhaps unequalled in the annals of engineering, should, on the conclusion of their labours, be crowned with their full meed of praise, and that in addition to the high consciousness of having done their duty, and done it well, they should be unmistakably assured that their labours are appreciated, and that they had earned the approbation and gratitude of their fellow countrymen.

And, indeed, it was difficult to say which was the more deserving of our admiration—the work itself which most of us had the opportunity of seeing yesterday, or the skill and perseverance of those by whom it was planned and executed.

This would bring an end to one of the most momentous occasion in the annals of EIR history, approbation and encomium from Viceroy & Governor General and Governor of Bengal in opening longest uninterrupted 541 miles of direct line from Howrah to Benares.

The journey from Calcutta to Benares which used to take weeks and was so costly that only very wealthy could afford to make it more than once or twice in their lives, could now be undertaken in one day at a very trifling cost.

History: On Thursday morning, the 5th February 1863, a special train of eight carriages left the Howrah station, conveying the Earl and Countess of Elgin and Lady Louisa Bruce, with their suite accompanied by senior EIR officials, Mr. Palmer the Agent, Mr. Turnbull Chief Engineer and so far as the East Indian Railway Company's line was opened -that is, to Benares, en-route for the north-west, and finally to Shimla, where the Viceroy intended to spend the ensuing cold season, and probably the next also, as he had obtained the sanction of the Home Government to his absence for eighteen months from the seat of Government. The Lieutenant Governor of Bengal, Sir Cecil Beadon, joined the vice regal party at Dinapore, and proceeded with it to Benares, in order to be present at a grand durbar and a grand dinner.

It would be a special occasion; the opening of 541 miles of lines of EIR from Benares to Howrah by Viceroy Lord Elgin, the longest stretch of uninterrupted direct rail line in the country, celebration on achieving a major mile stone in one of the most gigantic infrastructure work carried anywhere in the world, whether in its structural completeness, or in its political, commercial, and social importance, was unsurpassed by any railway in the world, a proud display of western technology and engineering in the country and a magnificent assertion of British energy and power. The construction of line from Dinapore to Benares was completed on 22nd December 1862.

“The greatest distance traversed in a direct line is on the East Indian Railway from Calcutta to Benares, 541 miles; the next greatest is the trans-peninsula line from Madras to Beypore, 405 miles ; and the next from Bombay to Sholapore, across the Bhore Ghat, 295 miles.”-- Report of Mr. Danvers, the Government Director of Indian Railways, for the year 1862-63,

It would be an occasion where Viceroy and Governor General would publicly put their stamp of appreciation over the splendid work done by EIR in constructing railway in India. Earlier Governor General Lord Dalhousie had opened Howrah to Ranegunge lines of EIR in 1855, Lord Canning opened Rajamhal lines in 1860 and line up to Benares would be opened by Lord Elgin in 1863.

Sir Cecil Beadon, Governor of Bengal would eloquently put on record the approbation and encomium earned by EIR officials, during the celebratory toast on 6th February 1863:

“it is right, I say, that those who have hitherto wrought bravely and unflinchingly towards the accomplishment of this great object, in spite of difficulties which on the whole are perhaps unequalled in the annals of engineering, should, on the conclusion of their labours, be crowned with their full meed of praise, and that in addition to the high consciousness of having done their duty, and done it well, they should be unmistakably assured that their labours are appreciated, and that they have earned the approbation and gratitude of their fellow countrymen.”

It would also be an occasion when Mr. Turnbull, Chief Engineer EIR, after thirteen years' of strenuous service supervising survey and construction of 900 miles of Railway in India would leave for England due to his failing health and his singular contribution would be praised both by Viceroy and Governor of Bengal in most glowing terms. He would be succeeded by Mr. Power, who had constructed major portion of Soane Bridge, as chief engineer of EIR.

“All the works on the line were designed, superintended, and carried out by Mr. Turnbull, and by his able assistants. What, then, shall we say of the men to whom we are indebted for the accomplishment of these great results, in the face of such formidable opposing circumstances? Of Mr. Turnbull, on whom the Governor-General has just passed a deserved encomium, I will only add that, in my opinion, he has deserved well of his country, and has earned a high place in that illustrious line of British engineers which the names of Brindley and Stephenson adorn. It has already been my good fortune to bring Mr. Turnbull's name officially and prominently to the notice of the Governor-general in Council in connection with the completion of the Bengal division of the railway, and I now call upon you to join me in expressing our hearty approval of his eminent services.”- Sir Cecil Beadon, Governor of Bengal

Sir Cecil Beadon, Governor of Bengal had sent his recommendation on 22nd December to government of India for acknowledging eminent public service rendered by Mr. George Turnbull the Chief Engineer of EIR.

"No. 798.

*From the Officiating Joint Secretary to The Govt, of Bengal,
in the P. W. Dept., Railway Branch.*

*"To the Secy, to the Govt, of India,
Public Works Department.
Fort "William, Dec. 22, 1862.*

Sir, -

"The date of throwing open for public traffic the entire running line of the East Indian Railway in Bengal is felt by the Lieutenant-Governor to be a fitting time for bringing specially to the notice of the Governor-General in Council, the eminent public services rendered by Mr. George Turnbull, the chief engineer of the Company.

The magnificent series of works forming this important railroad have been planned and carried out by Mr. Turnbull from the very outset to the period of completion under circumstances of extraordinary difficulty, and the highest credit is due to him for the successful issue to which he has conducted his operations. His Honour considers that Mr. Turnbull fully deserves some marked acknowledgment of his exertions on the part of the Government of India, and of the home authorities.

*I have the honour to be, Sir,
"Your most obedient servant,
F. S. Taylor, Captain, R.E.,
"Offg. Joint Secy, to the Govt, of Bengal, in the
P. W. Dept., Railway Branch."
Extract from " Official Gazette," Bengal.*

The half-yearly General meeting of the Proprietors of EIR Company held on Wednesday, April 29, 1863 at the London Tavern; Mr. Rohert W. Crawford, M.P., the chairman presiding, also recorded the extraordinary contribution of Mr. Turnbull:

"that their respected friend and chief engineer, Mr. Turnbull, after thirteen years of laborious duty, has found that his health will no longer permit him to give the Company the benefit of his services—services of which it is impossible for the board to speak too highly—and has resigned his appointment.

The following letter and Government notification having been communicated to the board, they take this opportunity of echoing the desire of the Government of India that Mr. Turnbull's public services should receive some marked acknowledgment on the part of Her Majesty's Government, and of stating that so far as this Company is concerned, they will be prepared to support most cordially any vote of money from their interest funds which the Proprietors may desire to make, with a view to provide a testimonial, which shall be at once acceptable to Mr, Turnbull, and shall adequately mark their respect and esteem for an officer to whom they are so greatly indebted.

Gratifying, however, as any tokens of respect would, doubtless, be to Sir. Turnbull, they will be nothing as compared with the reward he will find in the contemplation of: kindly feelings with which future ages of India will unquestionably regard the name of the man whose genius planned, and whose indomitable courage and perseverance have carried out, "the magnificent series of works " entrusted to his care."

"His Excellency the Viceroy will not fail to bring to the favourable notice of Her Majesty's Government the long and excellent services of Mr. Turnbull, who, having been the first railway engineer employed in India, has now happily seen the portion of this great work on which he was more particularly engaged brought to a close, after many years of arduous and persevering labour, under circumstances of unusual difficulty, with the most complete satisfaction to his employers and to the Government, and with the highest credit to himself."-- Accounts and Papers of the House of Commons, Volume 43, By Great Britain, Parliament. House of Commons

It may be mentioned, as a curious fact, that the quickest journey ever performed between Benares and London was by Mr. Turnbull, who left the former place on the 8th February 1863, arrived at Calcutta on the 9th, left Calcutta the same day, and reached London on the 15th March, occupying but 36 days in all.

The destination of the party for the end of the day's journey was Jamalpur, 297 miles from Calcutta, at which place it was intended to arrive at half- past six in the evening. Jamalpur, the central location was chosen for night stay as governor general wanted to see lines and inspect major engineering works during the day.

The brilliant appearance of the train of now carriages, including a very beautifully fitted saloon carriage for the Viceregal family, showed that the EIR was prepared to do full honour to his lordship's acceptance of their invitation to make a public occasion of the opening of the line, so far as the Holy City of Benares.

The first phenomenon which struck them, as Lord Elgin afterwards wrote, was the 'very sensible change of 'climate which began to make itself felt at some 250 'miles from Calcutta. The general character (he said) of the country continued to be as level as ever; but the air became more bracing, the surface of the soil more arid, and the vegetation less rank. Hot mid-days, and cold-nights and mornings, are substituted for the moist and comparatively uniform temperature of Lower Bengal, to a greater and greater degree with every step that the traveller takes towards the north.

At Burdwan, the Viceroy having alighted, the Maharajah of Burdwan was introduced to him, and after a few minutes of delay, the train started again, with the assurance that the lost time would be made up in the run of thirty miles thence to Beddeah, or, at any rate, before reaching Synthea.

In their anxiety to do the thing in due Viceregal conveyance style, the Railway authorities had supplied the engines, and the coaling stations along, with Kurhurbaree coal, the coal with highest calorific value from the Giridih colliery owned by EIR, as being of extra-superior-superfine-steam-generating quality; but they had overlooked the little fact that the said supplies had been lying exposed to

deteriorating atmospherical influences for some two years, more or less, at Howrah. So it was in vain that the stokers fed the fires to repletion; the more they burned, the less steam they got; station after station the time got worse and worse, and the travellers, whether Vice-regal or of more common clay, the more impatient.

But meanwhile Nulhatee was reached by the way, and here the Viceroy stopped to inspect Mr. Wilson's experimental light railway running from this station to Moorshedabad. A line was planned to connect old capital of Bengal with EIR lines at Nulhatee.

" On his way to Benares, by special train, the Governor-General stopped at Nulhatee and carefully inspected the light railway which, has been laid down on an ordinary road from Moorshedabad by Mr. Wilson, C.E., engineer of the Indian Branch Railway Company. The gage is only four feet, and the line will probably be open in two months—a first experiment in a system of railway construction which may yet revolutionize Indian transit.

The same Company are about to lay down a similar feeder of the East Indian trunk line from Cawnpore, through Lucknow to the Gogra, which is at this point more navigable than the Ganges. A third very long feeder will start from a point about 60 miles from Delhi, and at right angles to the line pass through the rich Doab of the Ganges and Jumna to the foot of the Himalayas. But the longest of all will be a line parallel with the East Indian, to start from Buxar on the Ganges, and run direct up through Oude and Rohilcund, probably to Umballa. Instead of £12,000 a mile, the lowest average price of the guaranteed lines, these light railways will be laid down at £3,500 a mile, of which the State will contribute £1,000 in some shape or other as a subvention. All will be on the uniform Indian gage of five and a half feet, and will meet the insuperable difficulty of the want of wood by iron sleepers."—Herapath journal 1863.

Mr. Wilson was employed as engineer on the East Indian Railway, and had the construction of the section of that line confided to him, between Burdwan and Rajmahal, on which Nulhatee was situated. After he had completed and opened this section in 1861, he left the service of that Company, but feeling that the trunk lines of railway without subsidiary lines would be comparatively useless, he at once applied his powerful mind to maturing a scheme for accommodating the country with light, inexpensive railways, the distinctive features of which were light rails, light rolling stock, the engines with fuel and water, not weighing more than 14 or 15 tons, and the rate of travelling not to exceed 16 to 16 miles per hour. -- **Herapath journal 1863**

The train skirting the foot of the Rajmahal Hills passed the Teen Pahar junction (Rajmahal) resplendent with pretty and varied scenery which nature provided in abundance, further passing Colgong, Bhaugulpore, Sultangunge, and their intermediate and pretty stations, until the line of hills approaching the rail more closely at last cross it at nearly right angles, and the train bursted through the Monghyr tunnel. The tunnel, about a quarter of a mile in length, its outer extremes at each end arched in with brickwork, the solid bare rock forming the roof in the centre, was a major engineering challenge for EIR engineers to overcome. On other side of the tunnel the sail curves round to Jumalpole, planned as one of the most important station of the company.

Large workshops for the locomotive department and barracks for about 800 workmen had been constructed. Pretty red brick houses, with arched roof, for the chief officials, stud the plain between the rail and the contiguous range of hills which form almost an amphitheatre round the station.

The elevation of the range, though is not great, but the jungle and verdure-clad surface made it most attractive. The cold, crisp atmosphere of the season greeted the accompanying party of the special train which made a night halt at Jamalpur.

“An inquiry of the station people leads him to a comfortable room with a well-spread breakfast table, at which, for the moderate charge of Rs. 1-8 a good appetite is soon appeased. Mr. Kellner, of Burdwan hotel celebrity, is the good genius of the refreshment rooms. A large hotel is to be built here, and must prove a most attractive resort for invalids and pleasure seekers. The air is pure and fresh; the scenery is pretty, and Monghyr, with its hot springs and park, is close at hand; the surrounding hills abound with game of every description, —and within a twelve hours’ ride of Calcutta we know of no spot so inviting as Jumalpure will prove when every convenience for travellers is complete. “

The Viceroy special resumed its onward journey in the morning and from Jumalpure upwards, the rail continued to skirt the hills for about fifteen miles; and then succeeded mile on mile of an unbroken scene of green fields well cultivated. The poppy luxuriates, linseed, rape-geed, and castor-oil plants alternate the view. The first engineering work of any magnitude after leaving Jumalpure was the Kiul Bridge, constructed on the girder lattice principle, about a third of a mile in length and light in appearance. Viaducts, stations and bridges succeed one another, until Dinapore was reached.

At Dinapore, military and government officials were in full attendance and there was a great display of troops. The Lieutenant Governor of Bengal, Sir Cecil Beadon, joined the vice regal party at Dinapore. After tiffin, specially prepared by Kellner, the train started its onward journey. Canteen at Dinapore was also being run by famed Kellner where carefully cooked and good dinner was available.

“The distance through which the rail runs beyond Jumalpure is one of the richest in agricultural productions in India; and we noticed at almost every station that capacious goods warehouses were in a forward state for goods traffic accommodation. In the present state of the line (a single one) no care or foresight could enable the traffic of both passengers and goods to be carried on to the extent which must arise either satisfactorily or safely. We shall be only too glad to find that the caution and care, now evident along the line, result in that prevention of accidents which, with the material worked with of native station-masters and points-men, are by no means improbable, until a double line and longer training of the working officers render them at all events much less possible.”—Englishman, Jan. 30.1863

Tinpahar to Bhagalpur section was made ready by 1-11-1861, Bhagalpur to Jamalpur- section was made ready on 10-2-1862, while Jamalpur to Danapur was opened on 17-11-1862 and Danapur to Mugal sarai-22-12-1862.

“The board have the satisfaction to announce, that in Bengal on the mainline, from Jumalpure to Dinapore-road, 113 -1/2 miles, was opened on Nov. 17 ; that between that date and Dec. 22, the distance between Dinapore-road and the river Kurmmnassa, 74 miles, was completed ; and that by Jan. 1, in this year the Singarron branch, 8-1/2 miles, was also opened ; so that the total length of new line on this division of the works opened during the half-year was 196 miles.

In the North-west provinces the line from the river Kurrumnassa to Benares, 66-1/2miles, was opened December 22, thus completing, besides the colliery branches to Burdwan and to the Singaroon Valley, a continuous line from Calcutta to Benares, of 639 miles.

With the exception of the Barrakur Extension, and some of the station works, the whole of the Bengal division may be said to be practically finished—an achievement which, whether looking to the political and other difficulties encountered and overcome, or to the stupendous nature of many of the works, reflects the greatest credit upon the executive officers of the Company, and must be a source of the highest gratification to all parties interested in the success of this important undertaking.”-

After changing engines, the whistle and the guard's "All right", soon train left again into the green fields, and to Arrah. On leaving this, everyone was anxious to catch a first glimpse of the bridge over the Soane River.

Soane Bridge:

Next point of inspection was Soane bridge at Kurenmassa, a magnificent assertion of British energy and power, and the universal stretch of science, as it would be first time that great river would be spanned and bought within the bounds of modern civilization. The train ran over its vast length and stopped beyond, where the Viceroy and the whole party descended and spent half an hour of wonder and admiration at the strength and noble simplicity of the grand structure stretching upon twenty nine arches, of one hundred and fifty feet span, or one thousand four hundred and fifty yards at a great elevation, rendered necessary by the enormous rise of the torrents in the river during the rainy season.

The construction had suffered major delay during first war of independence in 1857 and progress of all works above Munger was at standstill for next two years. EIR suffered major destruction of its properties, later valued at three million sterlings and preparatory works at Soane bridge were destroyed twice in the uprising.

No one who had seen it could ever forget the impression created by the wonderful combination of strength with lightness, over whose fairy-looking lattice-girder structure the ponderous train glided with an effect indescribable by the spectator. The Lieutenant-Governor of Bengal, Sir Cecil Beadon later told that he had joined the train by being left behind under the bridge in a praiseworthy pursuit of knowledge; as usual, "wanting to know you know." Both the Viceroy and Sir Cecil Beadon had a long conversation with Mr. Turnbull and the railway officials respecting the works in which both showed the deepest interest.

The most critical point was to obtain a secure foundation in the sandy soil for these erections; and, strange to say, the principle adopted by company

engineers, under the name of the “Sunken Well” system, was the same as that followed by the great architects who built the famous ‘Taj’ of Agra. “ It will, it is to be hoped, prove successful; and these important works will remain an enduring monument of the benefits conferred on India during the present reign. Nothing that has been done by the British in India has affected the native mind so powerfully, and produced so favourable an impression, as these railway undertakings.”--

Carts and foot-passengers used the tunnel, or passage, and the trains passed over the upper surface, lined on each side by a light railing.

Everyone has read of, or is familiar with, the almost insurmountable engineering difficulties which have been so successfully overcome in carrying out this last work. When passing over it, and looking down on the swift and treacherous stream it spans, an Englishman may well feel pride and listen with pleasure to the almost childish expressions of wonder of the natives at the skill and triumphant energy which have completed this splendid bridge.

On the return journey from Benares the traveller had the most advantageous view of it, as the rail for a distance of nearly two miles curves round to cross it, and when first seen from this direction the view was nearly a side inspection, but passed quickly on through a fresh and richly cultivated level. Glimpses of the Ganges could be occasionally caught throughout the journey, and here and there a steamer paddling along reminding the tedious mode of river progression.

“The most important work on this line is the length of time, and everyone is built over a Saone bridge, immediately below Benares. The well-so that the great necessity of all will Saone is a large river during the rains, but in never be wanting.”--
All the Year Round, Volume 10

Arrival of special train at Benares- 30 minutes before scheduled time

All day the train had been “beating old Time,” and arrived, after a splendid run over one of the best laid new lines, half an hour before the appointed time on 6th January. The consequence was that no one was prepared for the reception. The police were ready, however, and formed a guard, and the troops, consisting of H.M.'s 20th and an escort of the Queen's Bays, arrived just in time to be too late, whilst a magnificent procession, intended by the Rajah of Benares to meet the Viceroy, had to be stopped on the far side of the bridge. East Indian Railway Company, having brought his Excellency safely and pleasantly over 540 miles of a really excellent and well ordered line, finely constructed, proceeded to entertain him upon the occasion.

Benares was alive in good time on the Saturday morning with crowds of enormous elephants and countless mobs of camels and motley spearmen and Sowars in every variety of tawdry uniform, no two of them according in anything except the Common and all-pervading ground of dirt.

“Benares, Feb. 7--H E. the Viceroy on his arrival at this city desires to congratulate the officers of the East Indian Railway Company and the public on the completion of the additional section of the Grand Trunk line of Railway from Calcutta

to the North West Provinces that has been recently opened to Benares, and on the prospects of the early opening of the whole line for traffic up to Allahabad and Delhi”.

-- Page no. 324, Gazette. ALLEN'S INDIAN MAIL.—April 13, 1863.

At eleven o'clock his Excellency held a levee at the Commissioner's house, at which all the civilians of the station and visitors were presented by the Governor-general's agent, Mr. Shakspeare, and the military by General Campbell.

The Durbar:

This was followed at noon by a private durbar, at which the Rajah of Benares was received then at one o'clock came the great durbar. In an enormous tent was placed the Viceroy's chair of state flanked by the Lieutenant-governor of Bengal on his left and the Foreign Secretary, Col. Durand, on his right, the Governor of the North-west Provinces being absent from Benares. In a great semicircle to the right were the native nobles attired in their gorgeous dresses and gentry beaded by the Rajah of Benares, as the local chief, and the Maharajah of Vizianagram who was there on a pilgrimage, as the leader of the natives not of the Benares district.

Address of Governor General

The royal salute having ceased, his Excellency, having taken his seat, addressed the native gentlemen as follows:—

“It affords me much satisfaction to find myself surrounded here by so many native gentlemen of high character and influence, gentlemen who in times of confusion and trouble gave proof of their loyalty and fidelity to the British Crown.

I welcome more especially the Maharajah of Benares, and I beg to assure him that if I omit to return his visit to-day I shall do so because the multiplicity of my engagements prevents me from carrying my intention into effect. I welcome also the Maharajah of Wiziaanagram, who, although he, a visitor here, occupies a high position and enjoys deservedly a high reputation in the part of India where he resides. I welcome, too, the Maharajahs of Doomraon and Bettia, who have come to this place from the district of Patna, which is under the able administration of my esteemed friend, the Lieutenant-governor of Bengal; and I welcome generally the Rajahs and gentlemen who have come here from the districts of Benares, Patna, and, I believe, Goruckpore and Allahabad. I have, moreover, a special word of welcome for the son of my trusty councillor, Rajah Deonarain Singh.

It is the desire of her Majesty the Queen that the native gentlemen of India should be represented in the council of the Governor-general, in order that, when laws are made for India, their opinions, and wishes, and feelings may receive due consideration.

Among the rajahs and gentlemen here to-day are many who have large estates in the neighbourhood and along the line of railway which we travelled over

yesterday. The value of those estates will be greatly enhanced by the completion of the important work of which we are about to-day to celebrate the opening.

I need hardly remind them that they will owe this advantage to the introduction of British engineering skill and British capital into this country. I trust that the consideration of this fact, and of similar facts which are of daily occurrence, will tend to produce a kindly feeling between the races, by showing them to what an extent they may be mutually useful to each other. Meanwhile, I hope that the gentlemen whom I am addressing will turn these advantages to account, by doing their utmost to improve their properties and to promote the happiness and welfare of their ryots and dependents."

The Dinner

The European portion of them, excepting the ladies, met again to close the busy day, at seven in the evening, at the Assembly Rooms, where was spread "The Dinner". Considering that the caterer, Mr. Kellner, had but five days' notice, the dinner, for about 120 guests, did great credit to the commissariat resources of the district, aided by facilities of transport which brought up lumps of famed Wenham Lake ice to cool the punch and other refreshing liquids.

Lord Elgin was supported on either side by Mr. Turnbull, the chief engineer, and Mr. Palmer, the agent of the East India Railway Company, and with them were seated the Lieutenant-governor of Bengal, General Campbell, commanding the Benares Division, Mr. Shakespeare, representing the Lieutenant-governor of the North West, the Rajah of Benares, and Mr. Sibley, one of the executive engineers of the company.

Toast by Mr. Edward Palmer the Agent of EIR

The Agent, Mr. Palmer, having proposed the usual loyal toasts, which were musically taken up in most oppressively prompt style by the energetic band of H.M.'s 20th, which was in attendance, said:—

"I now propose the health of his Excellency the Viceroy and Governor-general of India, who, I trust, will allow us to thank him for the honour he has done us in taking part in the proceedings of today. His presence here to-night is not only a mark of the interest which he takes in the progress of the East Indian Railway, but also one, amongst many proofs, that he is ready to afford every encouragement and incentive to all of us engaged in its construction.

"The officers of the East Indian Railway have constantly endeavoured to deserve the approval of his Lordship's government, as well as to merit the confidence of the directors of the company, and we cannot but regard the presence of his Excellency here to-day as a signification that the labours of the company's servants have met with his approval. "In the name of the directors and servants of the East Indian Railway Company, I beg to thank his Lordship for the honour he has done us, and I propose this toast—"The health of H.E. the Viceroy and Governor-general of India."

The speech by Viceroy and Governor-General of India:

After thanking the company for the honour which they had done him in drinking his health, his Excellency proceeded to say:

“In observing that my presence here to-day is a proof of the interest I feel in the progress of the East Indian Railway, and of my appreciation of the service which those who have been engaged in carrying it out have conferred upon India, Mr. Palmer interprets correctly the motives which have brought me here to-night.

But I may also remark, that in acquiescing in the proposal that I should attend this festival, I am following the example set me by my two immediate predecessors—Lords Dalhousie and Canning. Lord Dalhousie was present in 1854, at the departure of the first train from Howrah to Burdwan, and he would have attended at the dinner given on that occasion if his medical advisers had not peremptorily refused to allow him to make the attempt.

Lord Canning was present at Rajmahal at the railway celebration of 1860, and took a prominent part in the proceedings. Lord Canning had departed from the routine prescribed by the programme, and had invited the company to join him in drinking the health of his noble predecessor, the Marquis of Dalhousie, who had, as he justly observed, nursed the East Indian Railway in its infancy, and guided it through its first difficulties.

And now, gentlemen, having said so much on matters personal to myself, in return for the honour you have done me in drinking my health, I proceed to address you on the subject of the toast—“Success and prosperity to the East Indian Railway,” which has been entrusted to me, and to which I invite you, with every confidence that you will respond heartily to the appeal to do all honour. I have already adverted to the part which Lord Canning took at the railway festival held at Rajmahal in 1860.

On that occasion Lord Canning dwelt with much force and eloquence on the general advantages which the introduction of railways promised to confer upon India, on the vast commercial benefits which would result from the establishment of a cheap and rapid means of transport from the producing districts of the interior to that mysterious element known to its inhabitants under the title of the blackwater, to the civilising influences which facilities of intercourse would bring to bear on semi-barbarous tribes hitherto practically inaccessible, on the advantages which European health and energy would derive from means of communication which would bring the hill stations and sultry plains into closer proximity to each other.

Lord Dalhousie adopted, in my opinion, a judicious and statesmanlike policy; and looking back from the point at which we have now arrived, I think we may say with confidence that this policy has been justified by the result.

We have now in operation in India some 2,400 miles of railway, of which upwards of 900 miles belong to the East Indian Railway system. Some 2,000 miles still remain to be constructed under Government guarantees already granted; so that, when these lines shall have been completed, India will possess some 4,500

miles of railway constructed under this system. All these lines are first class lines, in the construction of which efficiency and perfection have been more considered than cost.

Many of the works upon them are monuments of British engineering skill, and of the power and beneficent application of British capital which will endure for all ages. We saw some of the most remarkable of these works in the course of our journey from Calcutta to this place. I may mention as the most conspicuous of them the iron latticed bridges over the Soane, and other great rivers which we crossed upon the route, and other subsidiary works not so visible to the ordinary traveller, but not less conclusive proofs of the great engineering skill which has been employed in the great undertakings that have been made necessary by the inundations to which much of the country traversed is subject.

I believe that the bridge over the Soane is longer than any bridge in the world except the Victoria Bridge over the St. Lawrence at Montreal, of which I laid the foundation-stone some ten years ago. In the case of the Victoria Bridge the difficulty which we had to encounter, and the engineering problem which we had to resolve, was to prevent damage from the huge masses of ice which come down the St. Lawrence during the spring. But I believe that water is a more formidable adversary to cope with in the liquid than in the solid form. And I believe, therefore, that the casualties against which Mr. Turnbull and those acting under him have had to provide were the more serious of the two.

I observe from the list of toasts, that my honourable friend the Lieutenant Governor of Bengal is about to propose during the course of the evening the health of the chief engineers and their staffs. He will, no doubt, do justice to their merits, and I shall not, therefore, anticipate what he may have

But as Mr. Turnbull is about to take his departure immediately for England, I cannot help congratulating him on the successful point at which we have now arrived the progress of the great work which he has superintended from the commencement, and which owes so much to and great ability with which he has guided and directed it.

I have no hesitation in affirming at once in answer to this question that we must not look to an indefinite extension of a system of Government guarantees for the accomplishment of this object. In the first place, it would be wholly unjustifiable for any one object, however important, to place such a strain upon our finances as this policy would involve. In the second place, however justifiable and necessary a system of Government guarantees may be in certain circumstances, it is essentially an expensive one, because, by securing to shareholders a minimum rate on their capital, it weakens in them the motives to economy, and because, by dividing the expenditure between Government and railway officials, it diminishes in the latter the sense of responsibility.

I lay it down as a fundamental principle that we ought to look to the eventual establishment of one uniform railway gauge for the whole of India. The experience of England is conclusive as the inconvenience of the double or conflicting railway gauge.

Lines to travel along the subsidiary lines the latter must have rails sufficiently heavy, and works of construction sufficiently substantial to support it. Moreover, where streams or rivers are encountered they must be bridged. In short, the subsidiary lines must be built in a manner which would make them nearly as expensive as the main lines. In other words, railways must not be introduced into any part of India where we cannot afford to spend from £10,000 to £15,000 a mile upon them. I am not prepared to accept this conclusion. I have been a good deal in America, and I know that our practical cousins there do not refuse to avail themselves of advantages within their reach by grasping at those which are beyond it.

In 1854, I travelled by railway from New York to Washington; we had several ferries to cross on the way, but we found that the railway with the ferries was much better than no railway at all. In short, in America, where they cannot get a Pucka railway, they take a Cutcha one instead.

This, I think, is what we must do in India. There are many districts where railways, costing from £3,000 to £4,000 a mile, might be introduced with advantage, although they would not justify an expenditure of from £10,000 to £15,000 a mile. , but I conclude by requesting you to join me in drinking "Success and prosperity to the East Indian Railway."

Speech of Thanks by Mr. Edward Palmer The Agent EIR

Mr. Palmer, in rising to reply, said—

"My Lord and Gentlemen,-I wish that the duty of returning thanks for the toast which you have drunk had fallen to the lot of someone who could do more complete justice than I can to a great theme, of one who could speak long and well on the subject of the East Indian Railway. It is not without much experience of the working of the East Indian Railway that we have this day the pleasure to contemplate the opening of 240 additional miles of it.

The railway from Calcutta to the North-west Provinces—upwards of 1,000 miles in its whole length—has, as you all well know, been opened portion by portion; and more than eight years have elapsed since the first length of twenty-four miles was opened for traffic in Bengal. In several successive stages of completion the railway has been worked, and at each step the results have more than realised the well founded expectations of those interested in its progress. As a short and merely local line the railway was a complete success."

Speech by Lieutenant Governor Bengal Sir Cecil Beadon

The Lieutenant -Governor of Bengal said:

The toast which has been allotted to me, and which I give with sincere and heartfelt pleasure, is "The Health of the Chief Engineers of the Railway and their Staff. I say with pleasure, because it cannot be otherwise than a pleasure to assist prominently in doing honour to men who have so eminently done their duty, and through whose means it is that we are here assembled to celebrate the completion of a great work; but, at the same time, I must regret that it has fallen to me to propose this toast, because I feel myself quite incapable of doing justice to it.

The toast, however, will stand upon its own intrinsic merits, and needs no words from me to recommend it to your cordial, your enthusiastic acceptance. In these days of progress, we are so much accustomed to witness the triumphs of engineering science, and the achievement of great works which half a generation ago were thought impracticable, we have come to think it so much a matter of course that when a railway is wanted it will be made, and that when once undertaken it will in due time be finished, whatever be the difficulties and obstacles that impede its execution, and we hear the language of important criticism so much more frequently and loudly expressed than the voice of encouragement and praise—that we are apt to lose sight of the real glory of such a work as this, and, in the complacent satisfaction we derive from its possession and use, to forget the masterly skill, the fertile resource, the indomitable energy, of those who designed and brought it to perfection.

But, on an occasion like this, when we are met together under the auspices of the ruler of the land—the noble and distinguished Viceroy and representative of our gracious Queen—who has ever been remarkable for his enlightened advocacy and patronage of useful and industrial enterprise, and whose confidence it is my highest honour to enjoy, when we are met together under such auspices to mark the completion of the great artery of communication between the metropolis and the North-West Provinces, and the first main link in the system of railways with which the whole continent of India will, sooner or later, be reticulated,—of a work which has already begun to bear abundant fruit, and which, whether in its structural completeness, or in its political, commercial, and social importance, is unsurpassed by any railway in the world.

It is right, I say, that those who have hitherto wrought bravely and unflinchingly towards the accomplishment of this great object, in spite of difficulties which on the whole are perhaps unequalled in the annals of engineering, should, on the conclusion of their labours, be crowned with their full meed of praise, and that in addition to the high consciousness of having done their duty, and done it well, they should be unmistakeably assured that their labours are appreciated, and that they have earned the approbation and gratitude of their fellow countrymen.

And, indeed, it is difficult to say which is the more deserving of our admiration—the work itself which most of us had the opportunity of seeing yesterday, or the skill and perseverance of those by whom it was planned and executed.

To those who can remember the time, now nearly twenty years ago, when the question of railways in India was first practically taken up by Sir Macdonald

Stephenson, and the almost contemptuous reception with which the proposal to construct them was met, it must seem, as it does to me, little short of a miracle that what was then deemed by high authority to be a chimera, should now be an accomplished fact.

The objections made to the undertaking were indeed for the most part frivolous enough, such, for instance, as that white ants would eat the sleepers—that the rains would wash away the embankments—that rust would corrode the rails—that we have a rail way at all; for if they had been foreseen, while yet the enormous traffic which the railway has attracted to itself even in its infancy was wholly unlooked for, our meeting to-day would more probably have been held in a different place to see the first sod turned, than to celebrate the opening of the line to Benares, a distance of some 550 miles, and the completion of a further distance of some 300 miles from Allahabad to the North West.

But all these difficulties have been successfully overcome by the ability and unwearied exertions of the engineers, and though the cost has been far greater than was anticipated, we are in possession of a railway, which in point of construction may vie with any in the world, and which promises in a short time to be as profitable as a commercial enterprise, as it has been already productive of boundless advantage both to the Government and to the people.

I will now with your permission allude briefly to some salient facts connected with the construction of this line, which, though well known to some of you, may be instructive to others, and which will serve to show the magnitude of the work, and the difficulties by which its execution has been beset.

The railway was proposed in 1844, and the subject was strongly recommended to the favourable consideration of the Court of Directors. The Court, though gravely stating the objections to the scheme, some of which I have alluded to, nevertheless sent out an experienced engineer, by whom levels were taken on the direct route from Calcutta to Mirzapore, and a favourable report made; but nothing was practically done, and the matter slept for nearly five years, when the project was revived by Lord Dalhousie, and encouraged by the promise of a State guarantee, Mr. Turnbull, who had been sent out by the newly formed railway company, proposed an experimental line to Raneegunge, pending the settlement of the question whether the main line should run direct to Mirzapore or by the Ganges Valley. This was agreed to; the work was begun in 1851, and the line was opened to Pundooah (37 miles) in September, 1854, and to Raneegunge (121 miles) in February, 1855.

In March, 1853, Colonel Baker and Mr. Turnbull reported in favour of the Ganges Valley line, and this deviation from the original project was sanctioned by Lord Dalhousie, as likely to open up the great marts of commerce in Bengal and Behar. Not that it was not felt at that time that a direct line might eventually be required, but the Ganges line was selected as the one most promising as a paying mercantile speculation.

And for my own part, though I do not question the soundness of the decision then arrived at, I cannot doubt that before long a direct line will be made, for I do not believe that the people of the North-west will patiently endure a line which adds 100 miles to their natural distance from Calcutta, and saddles with a proportionate extra cost every ton of goods sent from Benares to the seaport.

The work was begun and carried on under Mr. Turnbull's management; it was opened to the River Adjai in October, 1858; to Rajmahal in October, 1860; to Bhagulpore in November, 1861 ; and to Monghyr in February, 1862; and finally it was extended across the Kurumnassa, the boundary of the two lieutenant-governorships, and opened to Benares in December, 1862. The line being carried along the banks of the Bhagiruttee and Ganges, all the affluents of these great rivers had to be crossed by vast bridges, and very heavy works.

The principal of these are the Adjai-bridge, 1,800 yards long, about double the length of London-bridge, the More-bridge, almost as large, the bridges over the Brahminee, Bansloi, and Gomanee, the costly works between Colgong and Bhagulpore, where the country is annually inundated to a considerable depth,-the tunnel through the quartz rock at Monghyr, the Kuol-bridge, with its 9 spans of 150 feet each, and the Hullohar-bridge, with its 4 spans of the same size, resting on piers whose foundations are 55 feet below low-water level, and its auxiliary arches, no less than 631 in number to carry off the drainage water which in flood time is 10 miles wide, with a depth near the river of 9 feet.

Then comes the Soane bridge, the largest and most important work of all, with 28 spans of 150 feet each, and nearly a mile in length, including the abutments; and lastly, the heavy works near the Soane and the Kurrumnassa-bridge, consisting of 18 arches of 40 feet span, and about to be enlarged.

The chief difficulties, besides those of construction, which impeded the progress of the work were its magnitude and novelty, and the impossibility, for some time, of obtaining a sufficient supply of skilled labour, and, indeed, in some important places, of any labour at all; the Sonthal insurrection, which interrupted the works for a whole season ; the un-healthiness of the country, especially near the base of the Rajmahal Hills, causing great sickness and mortality among the engineers and the labourers, and frequent desertion of the latter; the failure of contractors, owing to the enormous rise in wages, and in the price of all commodities, whereby all calculations were falsified; and, more than all, the mutinies which for two full years put a stop to all progress above Monghyr, and caused the destruction of much valuable property, including twice the preparatory works at the Soane bridge.

All the works on the line were designed, superintended, and carried out by Mr. Turnbull, and by his able assistants. What, then, shall we say of the men to whom we are indebted for the accomplishment of these great results, in the face of such formidable opposing circumstances? Of Mr. Turnbull, on whom the Governor-General has just passed a deserved encomium, I will only add that, in my opinion, he has deserved well of his country, and has earned a high place in that illustrious line of British engineers which the names of Brindley and Stephenson adorn. It has

already been my good fortune to bring Mr. Turnbull's name officially and prominently to the notice of the Governor-general in Council in connection with the completion of the Bengal division of the railway, and I now call upon you to join me in expressing our hearty approval of his eminent services.

In regard to Mr. Sibley, the architect of the Adjai and More bridges, and now the chief engineer of the North-west division, and to Mr. Purcell, to whom we owe those elegant and substantial bridges which span the stream of the Kuol and the floods of the Hullohur—their works speak for them. They are both entitled to our cordial thanks and acknowledgments.

Our special thanks are also due to Mr. Power, who built the greater part of the Soane Bridge—that magnificent structure upon which we have gazed with admiration, if not with awe; and to Mr. Schmidt, who completed it. As you have already been reminded, it is the longest bridge in existence, save one, and may well be regarded as one of the wonders of the world. Mr. Power has now been appointed to succeed Mr. Turnbull as chief engineer of the Bengal division, and will, I have no doubt, emulate the example of his honoured predecessor. Mr. Schmidt, whose personal activity and devotion under great physical deprivation and suffering I myself witnessed, is, I believe, a gentleman of foreign extraction, if not of foreign birth; but if we call him an Englishman, we pay a compliment to ourselves rather than to him. And now I have done. I can only beg that my imperfect advocacy may not in the least degree impair the warmth with which you join me in drinking health and prosperity to the engineers of the East India Railway.

Speech of Thanks by Mr. Sibley, Chief Engineer North-West Provinces division EIR

Mr. Sibley, in returning thanks on behalf of the engineering staff in the N. W. Provinces, said:—

Sir, my lord and gentlemen, On behalf of the engineering staff in the North-West Provinces, I rise to acknowledge the honour which has been done to us. We of the North-West can claim but a tithe, and that a very easy tithe, of that portion of the line in celebration of the opening of which we are met to-day, and I should feel more diffident did our claim to thanks rest on that alone; but, as has been stated, we have 280 miles of opened line in operation from Allahabad to Agra, which will be extended, in, I hope, the course of a few weeks by fifty miles to Allyghur.

Thenceforward to Gazee-oodeen-nuggur, the first station on this side of Delhi, the line is ready for the permanent way, awaiting only sleepers. Again, from hence to the Jumna at Allahabad the line is ready for the permanent way, except only the Touse Bridge, and the girders of the Kudjoree Bridge, near Mirzapore, now in course of erection. The supply of timber sleepers has been, and will probably continue to be, a main difficulty, which may perhaps eventuate in our substituting wrought-iron bearers. Should materials arrive in time this year, 1863 may yet see a train leaving the banks of the Hooghly at Calcutta, and running with one solitary break at the Jumna at Allahabad to the hither bank of the Jumna at Delhi. The public has at times exhibited an impatience which was not unnatural, but which I may term, I hope without offence, an “uninformed” impatience.

Accepting the popular idea of the generally level and easy character of the country traversed, but few, I fancy, were aware of these great natural difficulties, which have been so interestingly adverted to by his Honour the Lieutenant-Governor of Bengal, and of the successful solution of which those who travelled from Calcutta yesterday and the day before saw so many admirable examples in the words of my esteemed friend and former master, Mr. George Turnbull.

So again as to the supply of timber for sleepers much misconception has prevailed, the popular idea being that this country is covered with forest jungle; the un-travelled commercial mind probably regarding it as an unlimited timber deposit, on which drafts for sleepers to any amount would be honoured on presentation. To this is to be added that the machinery of our procedure is, almost of necessity, somewhat complex, and that where wheel has to work into wheel before motion is produced, some friction, and consequently retardation, must necessarily ensue.

When these things come to be fairly considered, I am not without hope that the result of our labours during the last eleven years, though falling short of sanguine expectation, as human exertions generally do, may be deemed, on the whole, to be not altogether unsatisfactory. That our labours have not been light I can conscientiously state, but they have carried with them very much their own reward. While the best considered measures of the statesman might in many cases be but tentative, and in some even may bring suffering in their train, we have the high satisfaction of feeling that our labours are attended with unmixed benefit to the people of this land; while our works are in course of construction, they afford profitable employment to many thousands, besides at the same time teaching them the mechanical appliances, the more skilled construction, and the better organization of labours of the West; and when complete, these works provide those "easy means of communication" which, it has been truly said, form one of the three chief requisites to make a nation great and happy.

When to labours so far self-rewarding is given that confidence and support, on the part of those whom we serve at home, which has been so constantly afforded by our Board of Directors, there would seem, to make our reward complete, to need but that public appreciation in approval which has been so warmly bestowed to-night. For the very handsome, and as far as myself is concerned, the I fear too flattering manner in which this toast was proposed by his Honor the Lieutenant-Governor of Bengal, and for the very kindly manner in which it was received, I beg again, in the name of the engineering staff in the North-West Provinces, to return our very sincere and hearty thanks, —Hurkaru.

On Monday morning early, the Viceroy left Benares, and reached Allahabad in something under eight hours, traversing a flat rich country, covered with promising crops, visible occasionally through the awful dust clouds of the pervading medium of vision in the North-west." As the railway from Benares to Allahabad was not yet complete, Lord Elgin and his suite performed this part of the journey by carriage dak; each individual of the party occupying his own separate carriage, and being conveyed along at a hand gallop by a succession of single ponies, relayed "at stages of four to five miles in length."

“These ponies do not lead very happy lives, and, here as elsewhere, a diminution in the sufferings of the brute creation will be one of the blessings attending the introduction of a railway system”. --**Letters and Journals of James Elgin, Governor of Jamaica, Governor-General, By James Elgin**

The Vice regal visit to Benares and opening of EIR line up to Benares was reported in official Gazette on 7th February.

“H.E. the Viceroy on his arrival at this city desires to congratulate the officers of the East Indian Railway Company and the Public on the completion of the additional section of the Grand Trunk line of railway from Calcutta to the North-west Provinces that been recently opened to Benares, and on the prospects of the early opening of the whole line of traffic up to Allahabad and Delhi.

The distance from Calcutta by rail to Benares is 541 miles. "Work was begun in 1851. The line to Burdwan was opened in February, 1865 ; to Adjai in October, 1858; to Rajmahal in October, 1859; to Bhaughulpore in 1861; to Monghyr in February, 1862, and to Benares in December, 1862.

In ten years, therefore, have been opened (including branches) a continuous length of 601 miles, being at the rate of sixty miles a-year. This is exclusive of the portion of the line already finished between Allahabad and Agra, in the North-west Provinces, and of the section from Agra to Allyghur, which it is expected to be ready in a few weeks. Including this length, the progress of the East Indian Railway has not been short of ninety miles a-year—a rate which, if it has not come up to the expectations first entertained, is, under all the circumstances of the case, satisfactory as regards the past, and encouraging as regards the future.

On this journey from Calcutta to Benares H.E. observed with much interest the numerous striking works that have been so successfully constructed on this railway by the Company's engineers, and viewed with particular admiration the great girder bridge over the Soane, which it is believed is exceeded in magnitude by only one bridge in the world. The smaller girder bridges over the Keeul and Hollohur, the heavy flood arching in the vicinity of these rivers, the masonry bridges over the Adjai and More, and the Monghyr tunnel, also attracted the attention of H.E. the Viceroy, as works of more than ordinary difficulty designed and carried out with signal ability.

H.E. The Governor-General gladly accepts this opportunity of acknowledging the services rendered by the officers of the Railway Company in the prosecution of this great work; and of expressing more especially the strong sense he entertains of the high engineering skill and the steady devotion to his duties exhibited by Mr. George Turnbull, the chief engineer of the Company in Bengal, who, in a few days, will give up the direction of the works which ho has now seen completed. Although not in the immediate employment of the Government, Mr. Turnbull has, in the opinion of H.E., well earned the expression of the thanks of the Governor-General for his

professional services, which have, indeed, been rendered as much to the public as to the Railway Company.

In all Mr. Turnbull's dealings with the officers of the Government he has invariably shown that moderation and desire to conciliate which were essential for the harmonious and successful carrying on of the railway works, under the peculiar conditions imposed by the terms of the Government guarantee; and the Governor-General has much satisfaction in signifying, in behalf of the Government of India, his high estimation of the manner in which all Mr. Turnbull's relations with the Government have been conducted.

H.E. the Viceroy will not fail to bring to the favourable notice of H.M.'s Government the long and excellent services of Mr. Turnbull, who, having been the first railway engineer employed in India has now happily seen the portion of this great work on which he was more particularly engaged brought to a close, after many years of arduous and persevering labour, under circumstances of unusual difficulty, with the most complete satisfaction to his employers and to the Government, and with the highest credit to himself."--- R. Strachey, Lieut-Col. R. E., " Secy, to Govt of India with the Gov.-Gen." Extract from " Official Gazette," Bengal. " Benares, Feb. 7. 1863

The Lieutenant-Governor of Bengal at a Durbar held at Patna on January 20, 1863, spoke about the role of Railway in ushering development and progress in the country and journey from Calcutta to Benares which used to take weeks and was so costly that only very wealthy could afford to make it more than once or twice in their lives, can now be undertaken in one day at a very trifling cost:

"As the most obvious instances of this progress, I may allude to the railway which brought me from Calcutta to this place in a few hours, and the electric telegraph by which intelligence may be flashed to the capital in as many minutes. Formerly, as you well know, and until the other day, the journey from this to Calcutta or Benares and back again was a work of many days, or even weeks, and was attended with such expense that none but the wealthy could afford to make it more than once or twice in their lives, and some even of the wealthy did not attempt it at all; but now it is in the power of every one, at a very trifling cost, to travel rapidly and safely to either place in one day and to return the next. It cannot be but that this great facility of intercommunication with the great centres of intelligence and ancient learning will tend to expand your thoughts and excite in you desires for that higher degree of civilisation without which the full fruition of the gifts of Providence, whether of mind and soul, or of the material creation, is impossible."—Allen's mail , March 23, 1863

The completion of great bridges over the Tonse and the Jumna at Allahabad were now two major works in progress for connecting the line to Allahabad and beyond.

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4. Accounts and Papers of the House of Commons, Volume 43 By Great Britain. Parliament. House of Commons
5. Hurkaru 1863
6. Allen's Indian Mail 1863
7. Herapath's journal 1863
8. The History of the East Indian Railway by George Huddleston
9. Congressional serial set 1864, page 94
10. Letter from Secretary of State 1865
11. Parliamentary papers , house of commons , volume 42, page 12, 1863
12. Report to Secretary of State for India in council on Railways in India for the year 1862-63 by Juland Danvers
13. All the Year Round, Volume 10- Charles Dickens
14. Bengal Hurkaru, March 27 ,1863.
15. Englishman , Feb, 19, 1863
16. Indian Year-book 1862 ...: A Review of Social, Intellectual, and Religious ...

The following statement shows the number of vehicles completed and in course of construction up to December 31 in EIR (Bengal Division) last. Coaching stock ; passenger engine B, 29 ; goods engines, 109 ; first class, 30 ; composite, 12 ; saloon, 2; second class 76; third class, 190 ; luggage van, 30 horse box, 22 ; carriage truck 15. Merchandise stock ; goods break 66; covered goods, 686 ; open sided, 471 ; fixed sided, 150 ; coke, 238 ; cattle, 30 ; sheep, 1 ; cool hopper, 801 ; platform, 73 ; timber truck, 30 ; powder van, 1 ; miscellaneous, 12.